



Triton TRA002KIT 2400W Dual Mode Precision Plunge Router User Manual

[Home](#) » [TRITON](#) » Triton TRA002KIT 2400W Dual Mode Precision Plunge Router User Manual 

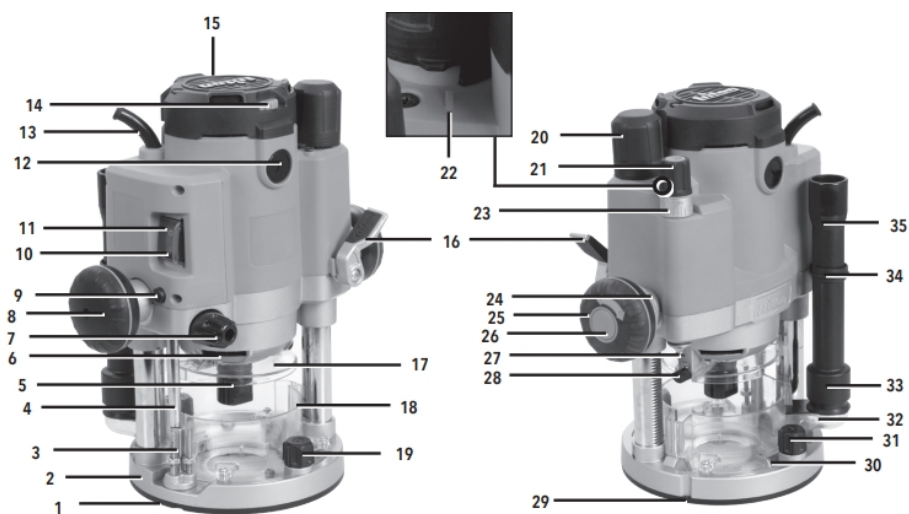
Triton TRA002KIT 2400W Dual Mode Precision Plunge Router User Manual

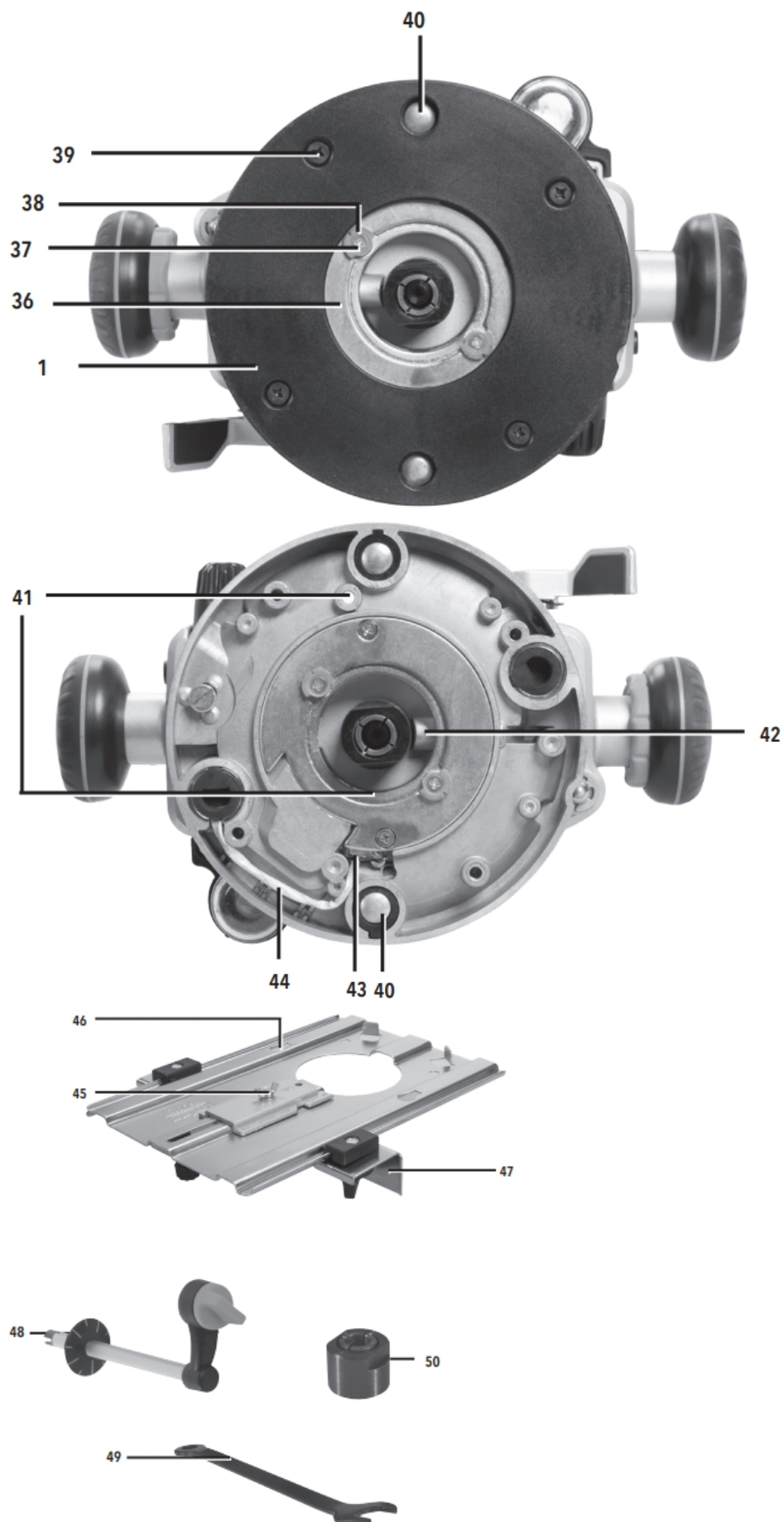


Contents

- 1 Product Overview
- 2 Figures
- 3 Introduction
- 4 Description of Symbols
- 5 General Power Tool Safety Warnings
- 6 Electrical Safety
- 7 Additional Safety for Routers
- 8 Product Familiarisation
- 9 Figures Description
 - 9.1 Fig. XIX
 - 9.2 Fig. XXI
- 10 Intended Use
- 11 Unpacking Your Tool
- 12 Before Use
- 13 Collet & router bit installation
- 14 Dust extraction
- 15 Extended baseplate & fence installation
- 16 Extended Baseplate:
- 17 Guide bush mounting plate & guide bush installation
- 18 Operation
- 19 Table-mounted operation
- 20 Accessories
- 21 Maintenance
- 22 Troubleshooting
- 23 Contact
- 24 Storage
- 25 Disposal
- 26 Guarantee
- 27 Purchase Record
- 28 Documents / Resources
- 29 Related Posts

Product Overview





Figures

Fig.I

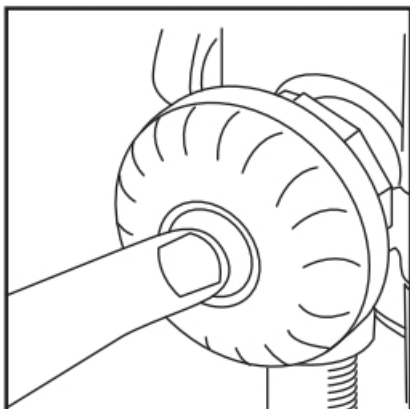


Fig.II

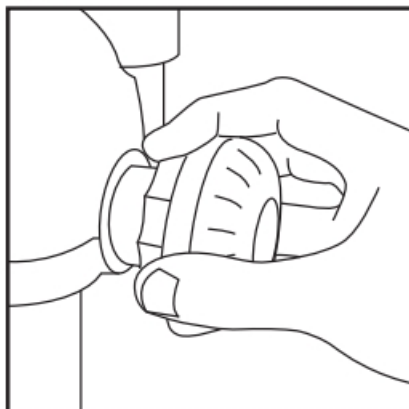


Fig.III

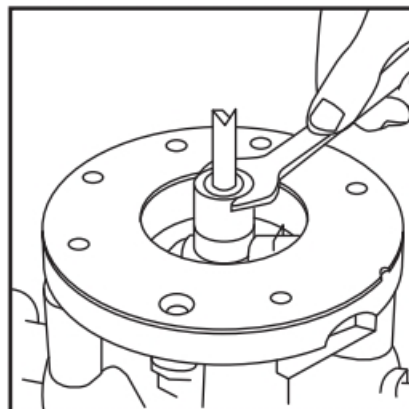


Fig.IV

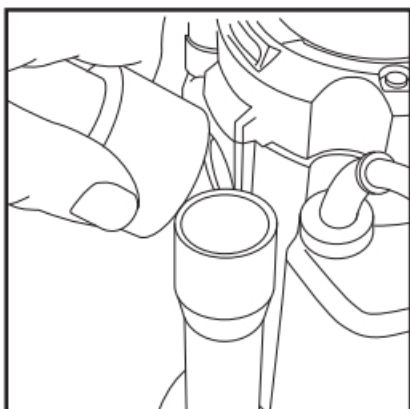


Fig.V

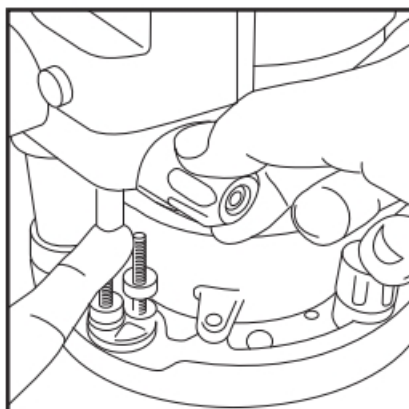


Fig.VI

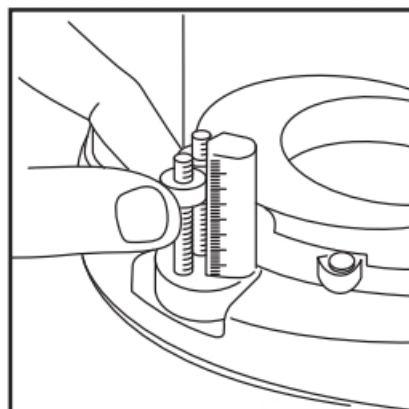


Fig.IV

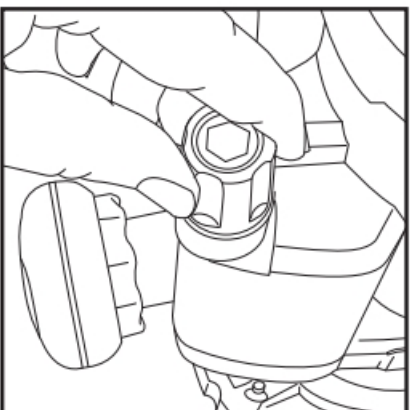


Fig.VIII

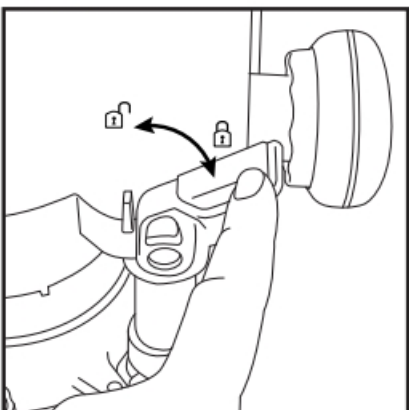


Fig.IX

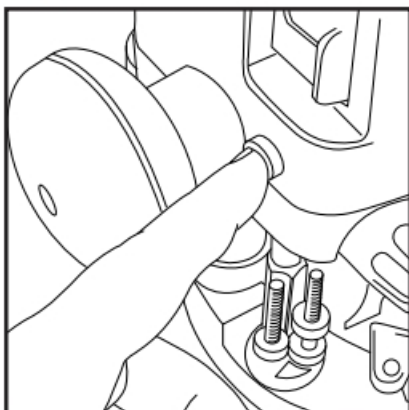


Fig.X

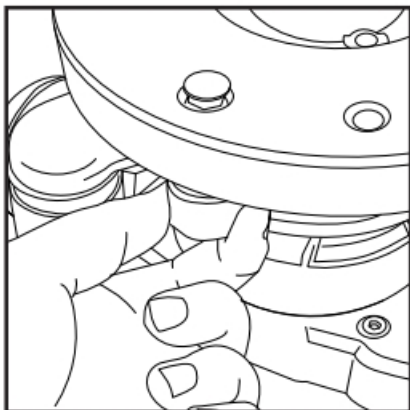


Fig.XI

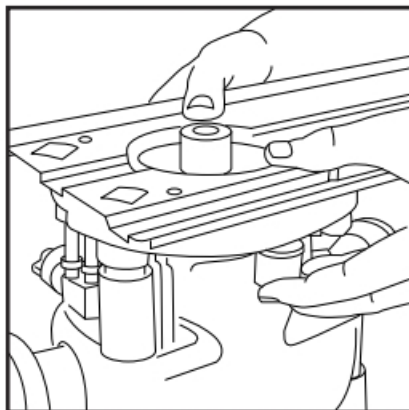


Fig.XII

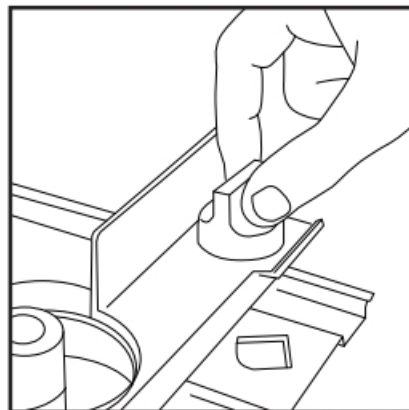


Fig.XIII

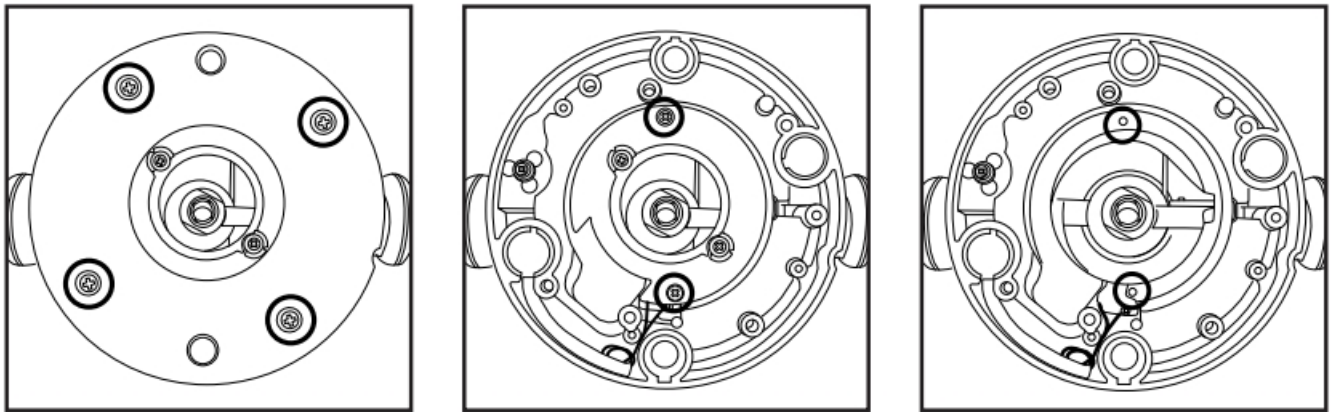


Fig.XIV

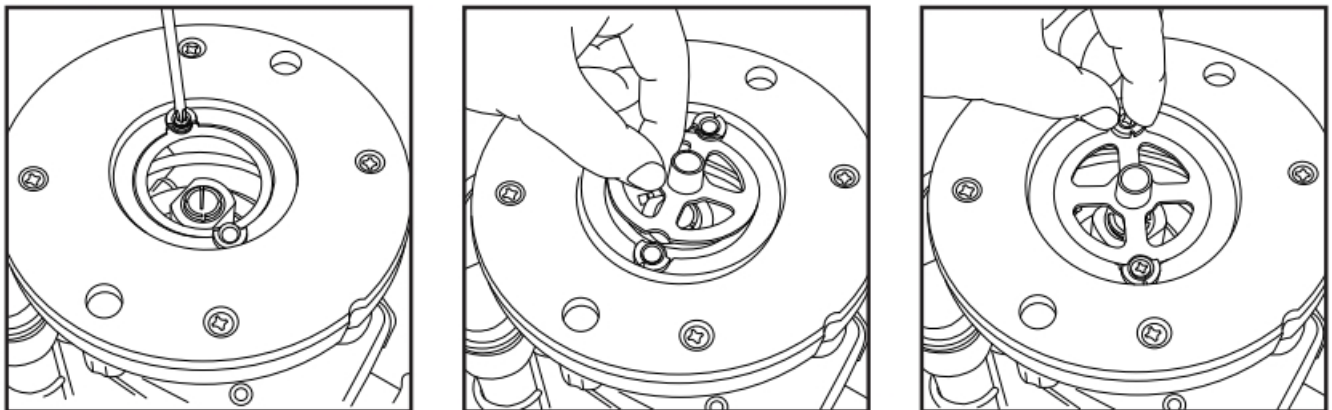


Fig.XV

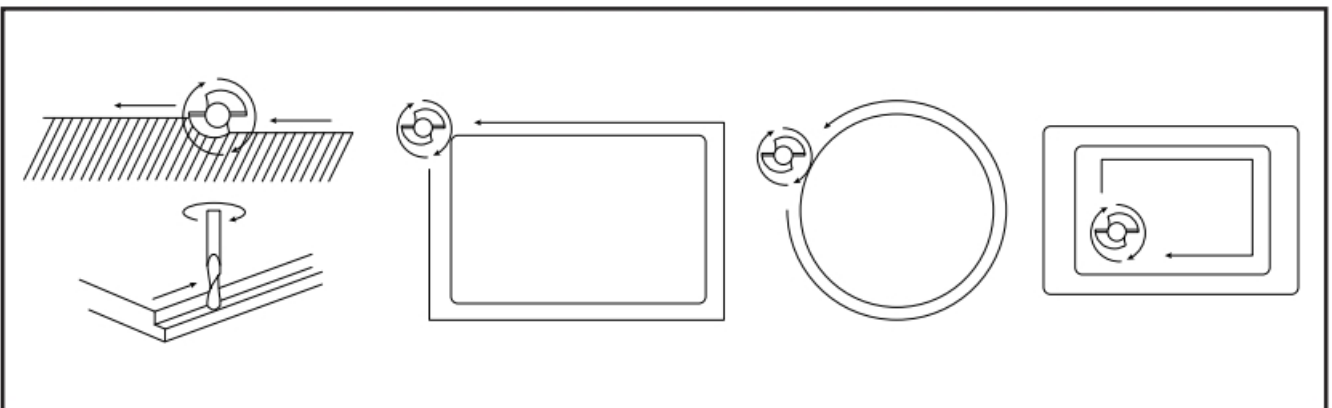


Fig.XVI

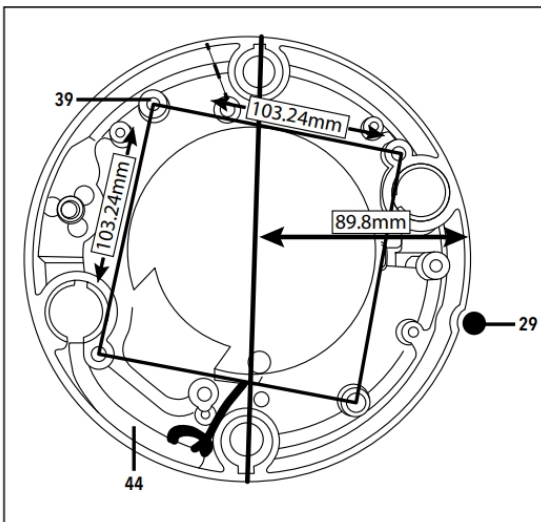


Fig.XVII

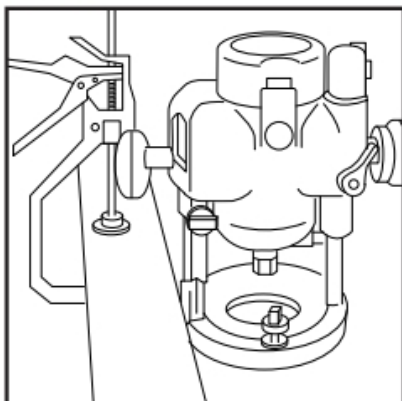


Fig.XVIII

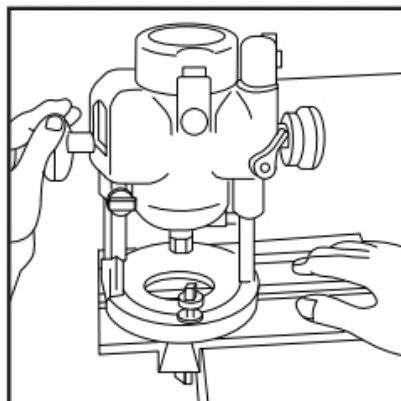


Fig.XIX

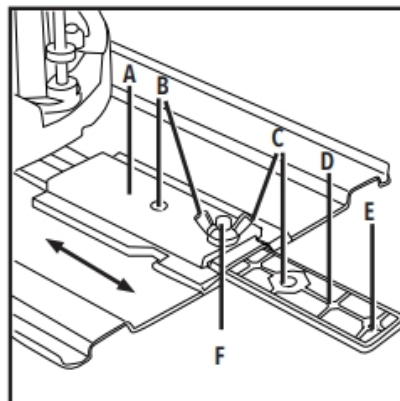


Fig.XX

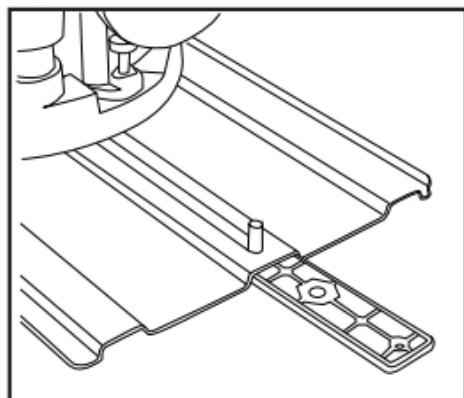


Fig.XXI

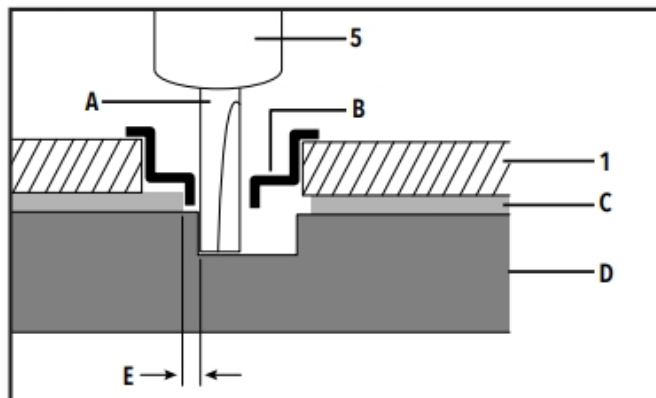


Fig.XXII

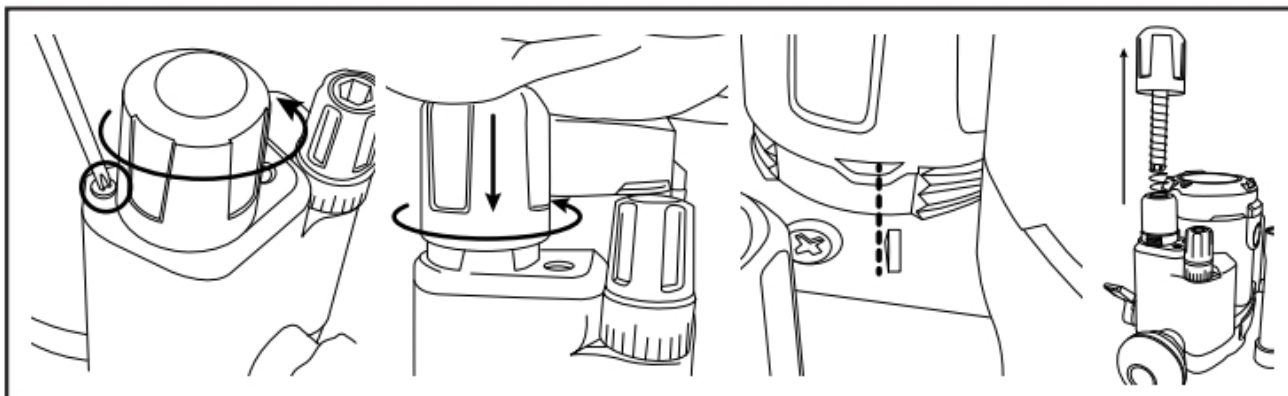


Fig.XXIII

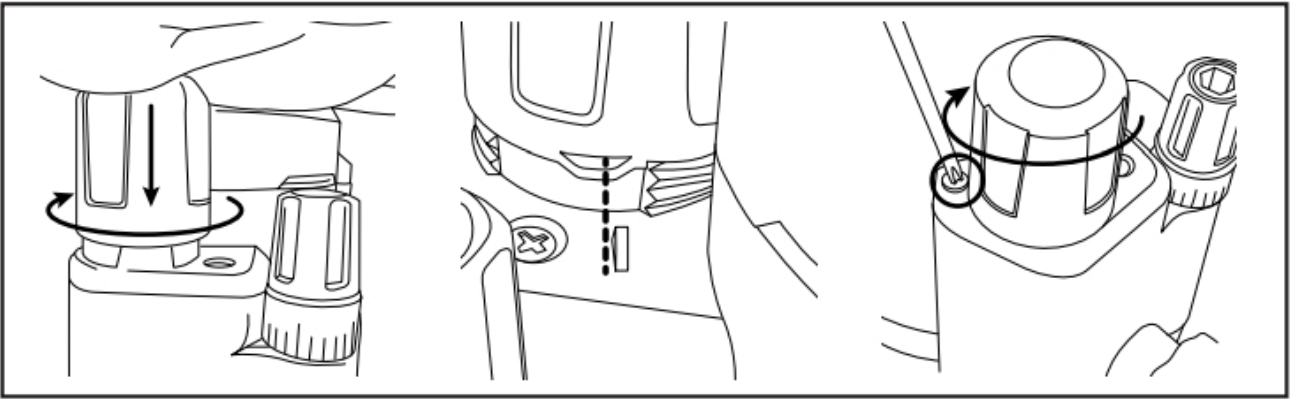
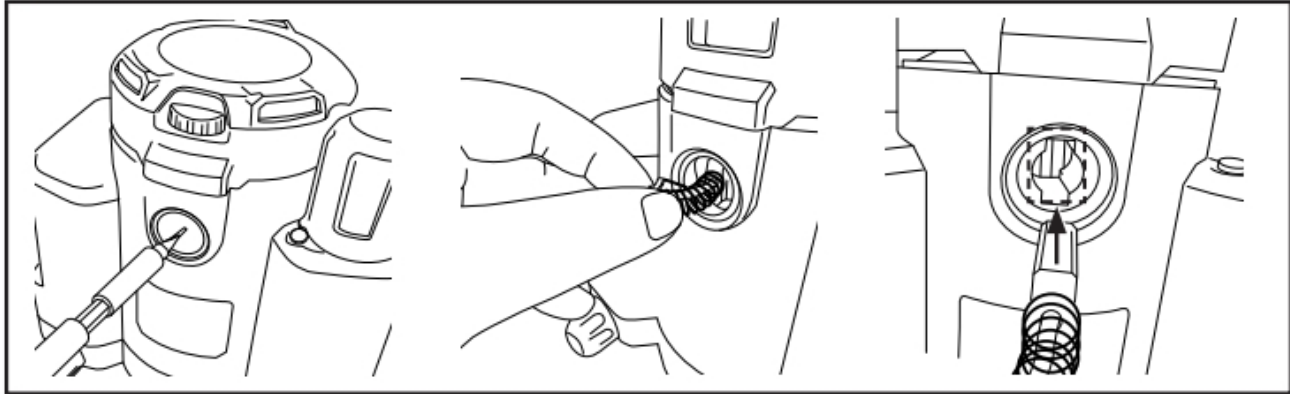


Fig.XXIV













Introduction

Thank you for purchasing this Triton product. This manual contains information necessary for safe and effective operation of this product. This product has unique features and, even if you are familiar with similar products, it is necessary to read this manual carefully to ensure you fully understand the instructions. Ensure all users of the product read and fully understand this manual. Keep these instructions with the product for future reference.

Description of Symbols

The rating plate on your tool may show symbols. These represent important information about the product or instructions on its use.


	Wear hearing protectionWear eye protectionWear breathing protectionWear head protection
	Wear hand protection

	Read instruction manual
	DO NOT use in rain or damp environments!
	WARNING: Moving parts can cause crush and cut injuries.
	Class II construction (double insulated for additional protection)
	Environmental Protection Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice
	Conforms to relevant legislation and safety standards
	Caution
	Be aware of kickback!

V	Volts
~, a.c.	Alternating current
A, mA	Ampere, milli-Amp
n₀	No load speed
n	Rated speed
°	Degrees
Ø	Diameter
Hz	Hertz
W, kW	Watt, kilowatt
/min or min⁻¹	Operations per minute
rpm	Revolutions per minute
dB(A)	Decibel sound level (A weighted)
m/s²	Metres per second squared (vibration magnitude)

Specification

Model no:	TRA002 / TRA002BARE / TRA002TXLKIT / TRA002TXXLKIT
Voltage:	220-240V~ 50/60Hz
Power:	2400W
No load speed:	8000 – 21,000min-1
7 speed setting (1 – 7):	1) 8000rpm2) 10,400rpm3) 13,000rpm4) 15,800rpm5) 18,000rpm6) 19,500rpm7) 21,000rpm
Collets:	1/2" & 12mm
Max cutter diameter:	– 45mm with Guide Bush Mounting Plate attached- 50 mm when used with TWX7RT001 without Guide Bush Mounting Plate attached- 55mm without Guide Bush Mounting Plate attached- 70mm max. diameter in suitable 3rd party router tables, without Guide Bush Mounting Plate attached
Max cutter shank:	1/2"
Plunge adjustment:	1) Free plunge2) Table height winder3) Micro winder
Plunge range:	0 – 68mm
Dust extraction port dimensions:	Inner: 26.7mm Outer: 32.8mm
Cord length:	3m

Protection class:	
Ingress protection:	IPX0
Run time:	30mins
Dimensions (L x W x H):	180 x 300 x 310mm
Weight:	6.84kg
As part of our ongoing product development, specifications of Triton products may alter without notice.	
Sound & vibration information	
Sound pressure LPA	94.4dB(A)
Sound power LWA	105.4dB(A)
Uncertainty K	3dB(A)
Weighted Vibration ahMain handle ah: Auxiliary handle ah:	15.88m/s ² 215.43m/s ²
Uncertainty K	1.5m/s ²

The sound intensity level for the operator may exceed 85dB(A) and sound protection measures are necessary.



WARNING: Always wear ear protection where the sound level exceeds 85dB(A) and limit the time of exposure if necessary. If sound levels are uncomfortable, even with ear protection, stop using the tool immediately and check the ear protection is correctly fitted and provides the correct level of sound attenuation for the level of sound produced by your tool.



WARNING: User exposure to tool vibration can result in loss of sense of touch, numbness, tingling and reduced ability to grip. Long term exposure can lead to a chronic condition. If necessary, limit the length of time exposed to vibration and use anti-vibration gloves. Do not operate the tool with hands below a normal comfortable temperature, as vibration will have a greater effect. Use the figures provided in the specification relating to vibration to calculate the duration and frequency of operating the tool.



WARNING: The vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used. There is the need to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

The declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another. The declared vibration total value may also be used in a preliminary assessment of exposure.

Sound levels in the specification are determined according international standards. The figures represent normal use for the tool in normal working conditions. A poorly maintained, incorrectly assembled, or misused tool, may produce increased levels of noise and vibration. www.osha.europa.eu provides information on sound and vibration levels in the workplace that may be useful to domestic users who use tools for long periods of time.

General Power Tool Safety Warnings



WARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury
Save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery operated (cordless) power tool.

1. Work area safety

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2. Electrical safety

1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
2. Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
5. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
6. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.
7. When used in Australia or New Zealand, it is recommended that this tool is ALWAYS supplied via Residual Current Device (RCD) with a rated residual current of 30mA or less.
8. Use proper extension cord. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating

3. Personal safety

1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
2. Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust

mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.

3. Prevent unintentional starting. Ensure the switch is in the OFF-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch ON invites accidents.
4. Remove any adjusting key or wrench before turning the power tool ON. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust related hazards.
8. Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

4.) Power tool use and care

1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
2. Do not use the power tool if the switch does not turn it ON and OFF. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
5. Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
8. Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5. Service

1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Electrical Safety

- This tool is double insulated and therefore no earth wire is required

- Always ensure the tool's plug matches the outlet socket
- Always check that the voltage supply is the same as that specified on the rating label of the tool
- Avoid damaging the cable or plug. If the cable or plug show signs of damage or wear, get it repaired by an authorised service agent or a qualified electrician
- For UK the plug uses a 13A fuse (BS 1362)

Additional Safety for Routers



WARNING

- Hold the power tool by insulated gripping surfaces only, because the cutter may contact its own cord. Cutting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.
 - Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.
 - If the replacement of the supply cord is necessary, this has to be done by the manufacturer or his agent in order to avoid a safety hazard.
 - It is strongly recommended that the tool always be supplied via a residual current device with a rated residual current of 30 mA or less.
1. Use safety equipment including safety goggles or shield, ear protection, dust mask and protective clothing including safety gloves
 2. Cloths, cord, string etc should never be left around the work area
 3. Ensure the mains supply voltage is the same as the tool rating plate voltage
 4. Ensure any cable extensions used with this tool are in a safe electrical condition, and have the correct ampere rating for the tool
 5. Completely unwind cable drum extensions to avoid potential overheating
 6. Use appropriate detectors to determine if utility cables or pipes are below the surface of the work area. Consult utility companies for assistance if necessary. Contact with electric cables can lead to electric shock and fire. Damaging a gas pipe can lead to explosion. Contact with water lines can lead to major property damage
 7. Ensure embedded objects such as nails and screws have been removed from the workpiece before commencing operation
 8. Handle router bits with care as they can be extremely sharp
 9. Before use, check the bit carefully for signs of damage or cracks. Replace damaged or cracked bits immediately
 10. Ensure router cutters/bits are sharp and maintained correctly. Dull cutting edges can lead to uncontrolled situations including stalling, increased heat and possible injury
 11. ALWAYS use both handles and maintain a firm grip on the router before proceeding with any work
 12. Keep handles and gripping surfaces dry, clean and free of oil and grease to ensure the tool can be securely held in use
 - m) Before using the tool to make a cut, switch on and let it run for a while. Vibration could indicate an improperly installed bit
 13. Take notice of the direction of rotation of the bit and the direction of feed

14. Keep your hands away from the routing area and router bit cutter. Hold the auxiliary handle or an insulated gripping surface with your second hand
 15. NEVER start the router while the cutter is touching the workpiece
 16. Ensure the plunge spring is always fitted when using hand-held
 17. Ensure the cutter has completely stopped before plunging to the collet lock position
 18. The maximum speed of the router bit/cutter must be at least as high as the maximum speed of the power tool
 19. Parts of the router bits may become hot during operation. Do not handle immediately after use to avoid risk of burns
 20.) Do not allow parts to come into contact with combustible materials
 21. The shank size of the router cutter/bit must be matched to the exact same size collet fitted to the router. Incorrectly fitted router cutter/bits will rotate irregularly and have increased vibration that could lead to loss of control
 22. DO NOT press the spindle lock button, or attempt to switch the tool into bit change mode while the router is operating
 23. Keep pressure constant while cutting into the workpiece, allowing the router bit cutter to dictate the speed of cut. DO NOT force the tool and overload the motor
 24. Ensure rating labels and safety warnings on the tool remain clear to read and are replaced if marked or damaged
 25. When operating the router, be prepared for the router bit cutter stalling in the workpiece and causing loss of control. Always ensure the router is firmly held and the on/off switch is immediately released in such circumstances
- After switching on the router, check the router bit is rotating evenly (not 'wobbling') and there is no additional vibration due to the router bit being incorrectly fitted. Operating the router with an incorrectly fitted router bit can lead to loss of control and severe injury
 - EXTREME care must be taken when using cutters with a diameter greater than 50mm. Use very slow feed rates and/or multiple shallow cuts to avoid overloading the motor
 - ALWAYS switch off and wait until the bit has come to a complete standstill before removing the machine from the workpiece
 - Disconnect from the power supply before carrying out any adjustment, servicing or maintenance
 - Even when this tool is used as prescribed it is not possible to eliminate all residual risk factors. If you are in any doubt as to safe use of this tool, do not use it



WARNING: Dust generated by using power tools can be toxic. Some materials may be chemically treated or coated and be a toxic hazard. Some natural and composite materials may contain toxic chemicals. Some older paints may contain lead and other chemicals. Avoid prolonged exposure to dust generated from operating a router. DO NOT allow dust to get onto skin or eyes and do not allow the dust to enter your mouth to prevent absorption of harmful chemicals. Where possible, work in a well-ventilated area. Use a suitable dust mask and dust extraction system where possible. Where there is a higher frequency of exposure, it is more critical that all safety precautions are followed and a higher level of personal protection is used.

Product Familiarisation

1. Baseplate

2. Base
3. Turret Stops
4. Depth Stop
5. Collet
6. Side Air Vents
7. Depth Stop Lock Knob
8. Handle
9. LED ON/OFF Switch
10. Safety Lock Out Cover
11. ON/OFF Rocker Switch
12. Brush Access Covers
13. Power Cord
14. Speed Controller
15. Motor Vents
16. Plunge Lock Lever
17. Top Safety Guard
18. Bottom Safety Guard
19. Baseplate Mounting Knob
20. Plunge Spring Access Cap
21. Micro Winder
22. Plunge Spring Cap Alignment Tab
23. Micro Winder Adjustment Guide
24. Winder Handle Clutch Ring
25. Winder Handle
26. Plunge Selection Button
27. Table Height Winder Connection Point
28. Manual Spindle Lock Button
29. Table Winder Indent
30. LED Light
31. Baseplate Mounting Knob
32. Dust Extraction Port
33. Dust Extraction Hose Tube
34. Dust Extraction Hose Tube Clip
35. Dust Extraction Hose Tube Rotating Port
36. Guide Bush Mounting Plate
37. Guide Bush Fixing Screw
38. Guide Bush Fixing Tab
39. Baseplate Screw ($\frac{1}{4}$ UNC x 4)
40. Baseplate Mounting Tab
41. Guide Bush Mounting Plate Fixing Screw x 2
42. Spindle Lock
43. LED Light Housing
44. LED Light Wiring

45. Circle Cutting Pivot Mount
46. Extended Baseplate
47. Fence *
48. Table Height Winder
49. Spanner
50. Collet (additional included accessory)

Figures Description

Fig. XIX

1. Upper Plate
2. Upper Plate Positioning Holes
3. Lower Plate Positioning Holes
4. Lower Plate
5. Pivot Hole
6. Pivot Mount Bolt

Fig. XXI

1. Router Bit *
2. Guide Bush*
3. Template
4. Workpiece
5. Offset

* Not supplied with all kits

Intended Use

Hand-held, mains-powered plunge router used for cutting profiles, grooves, edges and elongated holes in natural and composite wood. Also used with guide bushes and templates for cutting shapes, following patterns, as well as stationary installation in the Triton Router Table for the Triton Workcentre, and other suitable table systems.

The tool is intended for use with rotary cutting bits designed to cut and shape wood. It is not suitable for use with bits designed for other uses such as grinding, sanding etc.

The tool must ONLY be used for its intended purpose. Any use other than those mentioned in this manual will be considered a case of misuse. The operator, and not the manufacturer, shall be liable for any damage or injury resulting from such cases of misuse. The manufacturer shall not be liable for any modifications made to the tool, nor for any damage resulting from such modifications.

Note: Not intended for commercial use.

Unpacking Your Tool

- Carefully unpack and inspect your Fully familiarise yourself with all its features and functions

- Ensure all parts of the product are present and in good condition
- If any parts are missing or damaged, have such parts replaced before attempting to use this product

Before Use



WARNING: Ensure the tool is disconnected from the power supply before attaching or changing any accessories, or making any adjustments.

IMPORTANT: Never tighten the collet without a router bit installed. Tightening an empty collet can damage the collet.

Collet & router bit installation



WARNING: Wear protective gloves when inserting and removing router bits due to the sharp edges of the cutters.

1. Ensure the router is OFF and Safety Lock Out Cover (10) is closed
2. Place the router upside down on a secure flat surface with the motor completely stationary
3. Plunge the router to its maximum depth by pressing the Winder Handle Clutch Ring (24) (Fig. II) and rotating the Winder Handle (25) until the Collet (5) is protruding the Base (2) and Baseplate (1)

Note: Ensure the Depth Stop (4) is fully retracted (see 'Depth stop & turret'). The Collet should be protruding through the Base to allow easy spanner access.

Note: When the Safety Lock Out Cover is closed and the router is in full plunge, the automatic Spindle Lock (42) will engage to lock the spindle and allow single-handed Collet or router bit changes.

4. Using the Spanner (49), loosen the Collet by turning it anti-clockwise until removal
5. Select the desired Collet and install onto the threaded chuck by screwing the Collet in clockwise but do not tighten fully
6. Insert the required router cutter into the Collet, ensuring at least 20mm or half of the shaft (whichever is greater) is inserted into the Collet
7. Use the Spanner to turn the Collet slightly to engage the Spindle Lock (Fig. III), then turn the Spanner clockwise to tighten the router bit
8. Use the Winder Handle Clutch Ring to return the Base to a normal operating depth, which will disengage the automatic Spindle Lock and release the lock on the Safety Lock Out Cover, enabling access to the ON/OFF Rocker Switch (11)

IMPORTANT: The automatic Spindle Lock will only engage when the Safety Lock Out Cover is closed and the router is OFF. When the router's Spindle Lock is engaged, the Safety Lock Out Cover cannot be opened, which is designed to prevent accidental power ON when changing the Collet or router bit.

Dust extraction

Note: The Triton Router is equipped with a Dust Extraction Port (32) and a Dust Extraction Hose Tube (33) for chip extraction above the cut. (See 'Specification' for port size compatibility with your dust extraction system.)

- The Dust Extraction Hose Tube has a rotating port at the top of the tube (35), which will swivel during use when connected to a dust extraction hose (Fig. IV)
- Ensure the Tube is connected and the Dust Extraction Hose Tube Clip (34) is securing the Tube in place
- An adaptor will be required for use with the Triton Dust Collector (DCA300)

Extended baseplate & fence installation

Note: The Extended Baseplate (46) and Fence (47) assembly is not supplied with all kits

Extended Baseplate:

1. Place the router upside down on a secure flat surface with the motor completely stationary
2. Loosen the 2 x Baseplate Mounting Knobs (19 & 31) so that the mounting studs protrude through the Baseplate (1) (Fig. X)
3. Turn the Extended Baseplate (46) upside down and align the mounting studs with the router securing holes on the Extended Baseplate then slide the studs into the keyhole slots on the Extended Baseplate (Fig. XI)

Note: The orientation of the Extended Baseplate depends on where the support is required. For edge work, locate the ON/OFF Rocker Switch (11) on the short overhang side of the base.

4. Tighten the Baseplate Mounting Knobs on the plunge router firmly to secure the plunge router to the Extended Baseplate

Fence:

1. Ensure the Extended Baseplate (46) is installed on the router (see above)
 2. Loosen the knobs on the Fence (47) then slide the Fence along the tracks on the Extended Baseplate (Fig. XII)
 3. Tighten the Fence knobs at the required setting to lock the Fence in place
- **When routing trenches at a distance from an edge:** fit the Fence to the long end of the Extended Baseplate
 - **When performing edge work with a non-bearing guided cutter:** fit the Fence to the short end of the Extended Baseplate (Fig. XIII)
 - **When using a very large diameter cutter:** it may be necessary to fix wooden blocks to the Fence faces via the screw holes to ensure the cutter does not contact the Fence

Guide bush mounting plate & guide bush installation

Note: The router is supplied with a Guide Bush Mounting Plate (36), which is compatible with all Triton guide bushes used for template routing.

Note: The router can be used normally with the Guide Bush Mounting Plate (36) attached to the Base (2). See 'Specification' for maximum cutter diameter size for use with and without the Guide Bush Mounting Plate attached.

Installing the Guide Bush Mounting Plate (36) (Fig. XIII):

1. Invert the router to rest it on the flat Motor Vents (15) so the Baseplate (1) is facing up
2. Remove the 4 x Baseplate Screws (39) and remove the Baseplate from the Base (2)
3. Locate the holes for the Guide Bush Mounting Plate Fixing Screws x 2 (41)
4. Install the Guide Bush Mounting Plate (36), ensuring the Guide Bush Fixing Tabs (38) are facing The Mounting Plate fits in with the raised section in the Base to align the cut-out in the Mounting Plate and the holes for the Plate Fixing Screws (Fig. XIII)



WARNING: ALWAYS check that the Guide Bush Mounting Plate is aligned correctly. The Mounting Plate's hole must be centred in the router base for safe usage with router guide bushes and bits. Failing to align correctly could damage the router, the plate, the guide bush, the router bit and could cause serious personal injury.

5. Once aligned correctly, screw in the Guide Bush Mounting Plate Fixing Screws x 2 but do not overtighten
6. Replace the Baseplate to the Base, ensuring it aligns correctly with the Table Winder Indent (29), and fix with Baseplate Plate Screws

Removing the Guide Bush Mounting Plate (36) (Fig. XIII):

1. Invert the router to rest it on the flat Motor Vents (15) so the Baseplate (1) is facing up
2. Remove the 4 x Baseplate Screws (39) and remove the Baseplate from the Base (2)
3. Locate the Guide Bush Mounting Plate Fixing Screws x 2 (41) and remove them
4. Remove the Guide Bush Mounting Plate (36) and keep it with the screws in a safe place
5. Replace the Baseplate to the Base, ensuring it aligns correctly with the Table Winder Indent (29), and fix with Baseplate Plate Screws but do not overtighten

Installing guide bushes (Fig. XIV):

Note: The router is not supplied with guide bushes; however, bush sets are available as optional accessories from your Triton retailer.

Note: Ensure the Guide Bush Mounting Plate (36) is installed (see above).

1. Loosen the 2 x Guide Bush Fixing Screws (37) and ensure the 2 x Guide Bush Fixing Tabs (38) are facing the outer edge of the router Base (2) (Fig. XIV)
2. Align the guide bush notches with the screws and place into the indent of the Guide Bush Mounting Plate (36)
3. Rotate the Fixing Tabs to face the guide bush then tighten the Guide Bush Fixing Screws to secure the guide bush in place
4. To remove the guide bush, do the above instructions in reverse order

Operation



WARNING: ALWAYS wear eye protection, adequate respiratory and hearing protection, as well as suitable gloves, when working with this tool.

Switching ON & OFF

Note: When the router is connected to a power source, the ON/OFF Rocker Switch (11) will illuminate in both ON and OFF positions.

Note: The Safety Lock Out Cover (10) prevents accidental starting of the router. It must be retracted before the router can be switched ON. The Safety Lock Out Cover will remain open until the router is switched OFF.

1. Ensure the router is at the maximum extension of its travel, and that the cutter will not conflict with any foreign objects when it is powered ON
2. Connect the Power Cord (13) to the mains and slide the Safety Lock Out Cover (10) back to reveal the ON/OFF Rocker Switch
3. To switch ON, press the ON/OFF Rocker Switch to the 'I' position. While the ON/OFF Rocker Switch is in this position, the Safety Lock Out Cover will be prevented from re-covering the ON/OFF Rocker Switch
4. To switch OFF, press the ON/OFF Rocker Switch to the 'O' The Safety Lock Out Cover will slide back to its original position

Note: To engage the automatic Spindle Lock (42), the Safety Lock Out Cover must be closed over the ON/OFF Rocker Switch.

Switching the LED light ON/OFF

- The router is fitted with an LED Light (30) in the Base (2)
- To power the LED Light ON, press the LED ON/OFF Switch (9) located beneath the ON/OFF Rocker Switch (11) (Fig. IX)
- To power the LED Light OFF, press the LED ON/OFF Switch again

Variable speed control

Note: Router speed settings are not critical. Generally, the highest speed that does not cause burn marks on the workpiece should be used. Where stated, always follow the cutter manufacturer's maximum speed limitations.

- Operating at reduced speed increase the risk of damage to the router as a result of Use very slow feed rates and/or multiple shallow cuts
- The Speed Controller (14) is marked 1 to 7, corresponding approximately with the standard speeds and cutter diameters Rotate the Speed Controller's dial to select the required speed

Setting	RPM	Cutter Diameter
7	21,000	Up to 25mm (1“)
6	19,500	Up to 25mm (1“)
5	18,000	25-50mm (1 – 2“)
4	15,800	50-65mm (2 – 2 1/2“)
3	13,000	Over 65mm (2 1/2“)
2	10,400	Over 65mm (2 1/2“) / only if burning
1	8000	Use only if burning

Cutting depth adjustment

Note: To lock the router at a particular depth of cut, plunge the router head down and rotate the Plunge Lock Lever (16) to its lower position. This will hold the router head in this position.

- There are three methods of cut depth adjustment, depending on the accuracy and control required:

Free plunge

1. Free plunge depth adjustments can be made with the Plunge Selection Button (26) Press the Plunge Selection Button deep inside the Winder Handle (25) until it clicks inwards and engages the plunge mode (Fig. I)
2. Release the Plunge Lock Lever (16) and push the body of the router until the required depth is reached then re-lock the Plunge Lock Lever (Fig. VIII)

Winder handle adjustment

1. Plunge depth adjustments can be made by turning the Winder Handle (25)
2. Disengage the Plunge Selection Button (26) and ensure the button is flush with the Winder Handle
3. To release the Winder Handle, pull the Winder Handle Clutch Ring (24) inwards (Fig. II)
4. Release the Plunge Lock Lever (16) and twist the Winder Handle until the desired depth of cut is reached
5. Release the Winder Handle Clutch Ring and lock the Plunge Lock Lever (Fig. VIII)

Micro winder

IMPORTANT: For use in Winder Handle (25) adjustment mode only.

1. Disengage the Plunge Selection Button (26) and ensure the Plunge Lock Lever (16) is unlocked
Note: If the Micro Winder (21) is turned with the Plunge Lock Lever engaged, the Micro Winder will start clicking and the cut depth will remain unchanged.
2. Turn the Micro Winder (Fig. VII) clockwise to increase cutting depth and anti-clockwise to reduce cutting Adjust the cutting depth until the desired depth is reached

Note: When the end of the depth adjustment range is reached, the Micro Winder will offer greater resistance and will begin to 'click'.

3. Engage the Plunge Lock Lever (Fig. VIII), particularly for heavy cuts

Depth stop & turret

1. The Depth Stop (4) and Turret Stops (3) are used to accurately pre-set up to three different cut depths.
2. Loosen the Depth Stop Lock Knob (7) and retract the Depth Stop (4) fully, then re-tighten (Fig. V)
3. Set the turret posts to the required plunge depths using the scales on the stationary turret post (Fig. VI)

Note: To change turret posts, rotate the entire turret assembly to align with the Depth Stop.

4. With the desired cutter installed into the Collet (5), adjust the plunge depth until the tip of the cutter touches the workpiece
5. Rotate the turret until the fixed turret post is in line with the Depth Stop
6. Set the plunge depth at zero by releasing the Depth Stop, allowing it to spring on to the fixed post, then re-tighten the Depth Stop Lock Knob
7. Rotate the Turret Stops until the turret post with the desired plunge depth is aligned with the Depth Stop

Making a cut

Note: NEVER operate the router freehand without some form of guide. Guidance can be provided by a bearing guided router bit cutter, a straight edge (Fig. XVII), or the guides such as the Fence (47) (Fig. XVIII) (not supplied with all kits).

Note: When routing with a straight edge (Fig. XVII), calculate the position of the required cut in the workpiece by checking the distance from the centre of the cutter to the outside edge of the router Base (2) (Fig. XVI).

1. ALWAYS hold the router using both hands, on the handles Ensure the workpiece will not move and use clamps wherever possible
2. Allow the motor to reach its full operating speed
3. Lower the router bit cutter into the workpiece while moving the router slowly, keeping the Baseplate (1) held flat against the workpiece
4. If edge cutting, the cutting of the workpiece should be on the left side relative to the cutting direction (Fig. XV / A-D)
5. Keep the pressure constant and allow the cutter to work steadily through the Be aware that knots and other variations will slow the rate of progress

Note: To avoid 'bit chatter', direct the cut anti-clockwise for external cuts (Fig. XV / B & C) and clockwise for internal cuts (Fig. XV / D).

Note: Moving the router too fast can result in a poor-quality finish and overloading of the motor. Moving the router too slowly can result in overheating the workpiece.

Note: Normal operation of a router is to plunge the head after the router has been switched ON.

Note: Do not operate the router upside down unless securely mounted in a well-guarded router table (i.e. Triton brand).

Making multiple pass cuts

1. The Turret Stops (3) allow the maximum depth of cut to be achieved in an operator-determined number of Each step of the turret can be pre-set by adjusting the thumbwheel on the turret post (Fig. VI)
2. Rotate the Turret Stops so the Depth Stop (4) will contact the highest pre-set turret post when the router is The first pass of the cut can now be made Continue to make passes, rotating the Turret Stops and adjusting the Turret post depth for each pass when necessary until the full depth of cut has been achieved

Circle cutting

1. Fit the Extended Baseplate (46) without the Fence (47) to the router (see 'Extended baseplate & fence installation')
2. Remove the Circle Cutting Pivot Mount (45) from the Extended Baseplate by undoing the bolt and wing nut and removing both the Upper Plate (Fig. XIX – A) and Lower Plate (Fig. XIX – D)
3. Select a combination of Upper Plate Positioning Holes (Fig. XIX – B) and Lower Plate Positioning Holes (Fig. XIX – C)

Note: There are 2 holes in both the upper and lower plates that can be used to modify the length of the Circle Cutting Pivot Mount and therefore the radius of the circle to be cut. Additionally, the orientation of the Upper Plate can be turned 180 degrees, offering further positioning options.

4. Place the Pivot Mount Bolt (XIX – F) in the selected Positioning Hole in the Lower Plate
 5. Fix the Lower Plate to the workpiece using a small nail or screw through the Pivot Hole (Fig. XIX – E) at the centre of the required circle. Leave the Pivot Mount Bolt in position (Fig. XX
 6. Lower the router and base over the Pivot Mount Bolt and refit the washer and wing nut (Fig. XIX). Do not tighten
 7. Slide the Circle Cutting Pivot Mount along the length of the mounting slot in the Base Plate to achieve the exact radius of the required circle
- Note:** If you cannot achieve the correct radius, you will need to select a different combination of Positioning Holes and Upper Plate orientation – see 3 above
8. Tighten the wing nut to secure the Circle Cutting Pivot Mount With the router OFF, rotate the router along the intended path to check the circle and make any necessary adjustments
 9. With the router OFF, rotate the router along the intended path to check the circle and make any necessary adjustments
 10. Cut the circle in several passes, lowering the cut depth by approximately 2mm each pass



WARNING: DO NOT attempt to cut deeply in one pass.

- Through cuts: if cutting all the way through the material, fix a sacrificial board to the underneath of the workpiece. Cut the circle oversize, then when the cut is all the way through, reduce the diameter and work back to the required size, using light, full-depth passes

Template & guide bush routing (Fig. XXI)

- Different template guide bushes are available for template routing

- Accessory kits are available through your local Triton retailer
- See 'Guide bush mounting plate & guide bush installation'
- Template patterns are used with a Guide Bush (Fig. XXI – part B) to allow the Router to carve a pattern in the workpiece and are used for consistent, repeatable shapes
- When using a template and Guide Bush, the cut on the final workpiece will differ from the space in the template, and the Offset (Fig. XXI – part E) of the Guide Bush must be considered prior to cutting
- To work out the Offset, use this formula: $\text{Offset} = \text{Guide Bush outer diameter} - \text{Router Bit diameter}$

Table-mounted operation



WARNING: When in use with the Triton Workcentre Router Table Module TWX7RT001, the maximum cutter diameter is 50mm. This is constrained by the TWX7RT001's specification.

Note: While this product was designed for efficient and convenient operation on most router tables, it is particularly suited for use with the Triton Router Table Module TWX7RT001.



WARNING: When used with a third-party router table, refer to the 'Specification' section of this manual for the maximum cutting diameter of the router. Refer to the instructions supplied with the router table for the maximum cutting diameter of the router table.

Note: Fitting and operating this router on a third-party router table should be carried out in accordance with the literature supplied with the router table.

Note: Router adjustments are extremely easy using the unique features described earlier in the manual. See 'Collet & router bit installation' and 'Cutting depth adjustment'.

IMPORTANT: The plunge spring **MUST** be removed before this router is fitted to a router table:

1. Set the router at the full height of its plunge range and engage the Plunge Lock Lever (16)
2. Loosen and remove the small screw next to the Plunge Spring Access Cap (20) (Fig. XXII)
3. Applying downward pressure, hold the Access Cap firmly so the spring will not shoot upwards when released and twist the Cap anti-clockwise until the tab on the Cap aligns with the alignment tab on the router body (Fig. XXII)



WARNING: The plunge spring is tensioned with great force to enable a smooth plunging action. When the Plunge Spring Access Cap will shoot up quickly with the same force once it has been unscrewed. Be careful to not let the cap spring upwards uncontrolled, which could cause personal injury.

4. Slowly allow the Plunge Spring Access Cap to raise upwards once released (Fig. XXII)
5. Remove the spring and store in a safe place
6. Replace the Cap: ensure the tab on the cap is aligned with the alignment tab on the router body before turning the cap clockwise and reinstalling the screw (Fig. XXIII) to lock the cap in place

IMPORTANT: Before mounting the router under the router table, make sure the Depth Stop Lock Knob (7) is loosened and the Plunge Lock Level (16) is in the unlocked position.

Note: Ensure the spring is re-installed into the router before using the router freehand as a plunge router (Fig. XXIII).

- The Table Height Winder (48) engages with the Table Height Winder Connection Point (27) for quick and easy above-the-table height adjustment when the router is table-mounted

Accessing the baseplate screw threads

1. To mount the router in a third-party router table or a table of your own construction, remove the 4 x Baseplate Screws (39) of the Baseplate (1) (Fig. XIII) and remove the Baseplate
2. The 4 x Baseplate Screw holes are 1/4 UNC screw threads, used to secure the Baseplate to the Base (2) but also for table mounting if require
3. See the spacing dimensions of the Baseplate Screw holes in XVI

Accessories

- A full range of accessories—including router bits, collets and guide bushes—is available from your Triton stockist
- Spare parts including replacement brushes can be obtained from com

Maintenance



WARNING: ALWAYS disconnect the router from the power supply before carrying out any inspection, maintenance or cleaning

General inspection

- Regularly check that all fixing screws are tight
- Inspect the supply cord of the tool, prior to each use, for damage or wear. Repairs should be carried out by an authorised Triton service This advice also applies to extension cords used with this tool

Cleaning



WARNING: ALWAYS wear protective equipment including eye protection and gloves when cleaning this tool.

- Keep your tool clean at all Dirt and dust will cause internal parts to wear quickly and shorten the tool's service life
- Clean the body of your tool with a soft brush or dry cloth
- Never use caustic agents to clean plastic If dry cleaning is not sufficient, a mild detergent on a damp cloth is recommended
- Water must never come into contact with the tool
- Ensure the tool is thoroughly dry before using it

- If available, use clean, dry, compressed air to blow through the ventilation holes (where applicable)

Lubrication

- Slightly lubricate all moving parts at regular intervals with a suitable spray lubricant Brushes
- Over time the carbon brushes inside the motor may become worn
- Excessively worn brushes may cause loss of power, intermittent failure, or visible sparking

To replace the brushes:

1. Remove the 2 x Brush Access Covers (12) (Fig. XXIV)
2. Carefully remove the worn brushes (Fig. XXIV) and ensure the sockets are clean
3. Carefully replace with 2 x new brushes (always replaced both brushes at once) then replace the Brush Access Covers
4. After fitting, run the router without load for 2-3 minutes to help the brushes bed in
Note: The process of the brushes fully bedding in may take repeated uses. Motor sparking may continue until new carbon brushes have bedded in.

- Alternatively, have the tool serviced at an authorised service centre

Troubleshooting

Problem	Possible Cause	Solution
No function when ON/OFF Rocker Switch (11) is operated	No power	Check power supply
	Defective ON/OFF Rocker Switch	Replace the ON/OFF Rocker Switch at an authorised Triton service centre
Inaccurate cutting profile	Depth Stop (4) not correctly adjusted	Ensure the Depth Stop corresponds to the maximum amount of cut permitted by the Turret Stops (3)
	Incorrectly fitted or loose router bit/Collet (5)	Tighten router bit/Collet and cutter assembly
	No supply of power	Check power is available at source

Router will not operate	Brushes worn or sticking	Disconnect power, open Brush Access Covers (12) and ensure brushes are not damaged or heavily worn
	Switch is faulty	Have the tool serviced by an authorised Triton service centre
	Motor components faulty or short circuited	
Router runs or cuts slowly	Blunt or damaged cutter	Re-sharpen or replace cutter
	Speed Controller (14) set low	Increase variable speed setting
	Motor is overloaded	Reduce pushing force on router
Excessive vibration	Incorrectly fitted or loose router bit	Refit or tighten router bit
	Bent or damaged router bit	Replace router bit
Heavy sparking occurs inside motor or housing	Brushes not moving freely	Disconnect power, remove brushes, clean or replace
	Damaged or worn motor	Have the tool serviced by an authorised Triton service centre
Micro Winder (21) “clicks” or not adjusting	Plunge Lock Lever (16) engaged	Release Plunge Lock Lever
	Reached end of adjustment range	Reset the Micro Winder and set depth with the Depth Stop (4)
Makes an unusual sound	Mechanical obstruction	Have the tool serviced by an authorised Triton service centre
	Damage to internal windings	

Contact

For technical or repair service advice, please contact the helpline on (+44) 1935 382 222

Web: tritontools.com/en-GB/Support

- **Address:**

Toolstream Ltd.

Boundary Way Lufton Trading Estate Yeovil, Somerset BA22 8HZ, United Kingdom

- **EU Address:**

Toolstream B.V. De Keten 00004 5651 GJ Netherlands

Storage

- Store this tool carefully in the case provided
- Store in a secure, dry place out of the reach of children

Disposal

Always adhere to national regulations when disposing of power tools that are no longer functional and are not viable for repair.

- Do not dispose of power tools, or other waste electrical and electronic equipment (WEEE), with household waste
- Contact your local waste disposal authority for information on the correct way to dispose of power tools

Guarantee

To register your guarantee visit our web site at tritontools.com* and enter your details.

Purchase Record

- **Date of Purchase:** __/__/__
- **Model:** TRA002

1. Retain your receipt as proof of purchase
2. Triton Precision Power Tools guarantees to the purchaser of this product that if any part proves to be defective due to faulty materials or workmanship within 3 YEARS from the date of original purchase,
3. Triton will repair, or at its discretion replace, the faulty part free of charge.
4. This guarantee does not apply to commercial use nor does it extend to normal wear and tear or damage as a result of accident, abuse or misuse.
* Register online within 30 days. Terms & conditions apply.
5. This does not affect your statutory rights

Australian Warranty Information

- You may wish to register your product at www.tritontools.com but you are not under any obligation to do so.

- Our goods come with guarantees that cannot be excluded under the Australian Consumer Law.
- You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- This product is guaranteed against faulty materials and workmanship for 3 YEARS from the date of purchase. Please retain your receipt as proof of purchase.
- This warranty does not cover defects caused by or resulting from:
 - misuse, abuse or neglect;
 - trade, professional or hire use;
 - repairs attempted by anyone other than our authorised repair centres; or
 - damage caused by foreign objects, substances or accident.

Warranty Exclusions

Wearing parts, consumable items or service-related parts required when performing normal and regular maintenance of this product are not covered by the warranty unless it is found to be defective by an Authorised Service Centre

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The Carbatec policy is one of continuous improvement and the company reserves the right to alter designs, colours and specifications without notice.

Documents / Resources

	<p>Triton TRA002KIT 2400W Dual Mode Precision Plunge Router [pdf] User Manual TRA002KIT 2400W Dual Mode Precision Plunge Router, TRA002KIT, 2400W Dual Mode Precision Plunge Router, Dual Mode Precision Plunge Router, Precision Plunge Router, Plunge Router</p>
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